



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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<p>(21) International Application Number: PCT/KR91/00014</p> <p>(22) International Filing Date: 30 May 1991 (30.05.91)</p> <p>(30) Priority data: 1990/7806 U 30 May 1990 (30.05.90) KR 1990/14740 U 22 September 1990 (22.09.90) KR</p> <p>(71)(72) Applicant and Inventor: CHO, Seong, Ho [KR/KR]; Usung Apt. 13-302, Sam-dong 146-71, Uiwang-si, Kyonggi-do 437-040 (KR).</p> <p>(74) Agent: NAM, Kye, Young; Unam Bldg. 703, 1-Ka #7, Bongnae-dong, Jung-ku, Seoul 100-161 (KR).</p>			(81) Designated States: AT (European patent), AU (Petty patent), BE (European patent), CA, CH (European patent), DE (European patent), DK (European patent), ES (European patent), FI, FR (European patent), GB (European patent), GR (European patent), IT (European patent), JP (Utility model), LU (European patent), NL (European patent), NO, SE (European patent), SU, US.
			Published <i>With international search report.</i>
<p>(54) Title: A SOFT DRINK BOTTLE</p> <p>(57) Abstract</p> <p>A soft drink bottle having a cap (8) capable of using as a cup comprising (A) a bottle body (1) consisting of lower part with several square columns (1a) and a bottle neck (4) provided with several projections (6), an outer hoop (19) or an outer spiral hoop (21), (B) a cap (8) to be used as a cup consisting of round inclined several square columns (8a) and round inclined inner surface (10) provided with corresponding projections (11), an inner hoop (20) or an inner spiral hoop (22) to shut the bottle with the cap (8), and (C) a label (18) with a cutting band (17) and a strap (16) thereof to advertise therein and to protect the bottle contents.</p>			<p>The diagram illustrates a soft drink bottle with the following labeled parts:</p> <ul style="list-style-type: none"> 9: Top cap 8: Cap (cup) 8a: Square columns on the cap 17: Cutting band 16: Strap 15: Hoop 15a: Hoop detail 3: Neck projection 6: Neck projection 4: Neck 7: Neck projection 5: Neck projection 2: Neck projection 15a: Hoop detail 1a: Square columns on the body 1: Body 18: Label

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A SOFT DRINK BOTTLE

BACKGROUND OF THE INVENTION

Field of the Invention

The present invention relates to a soft drink bottle having
5 a cap capable of using as a cup, more particularly to a soft
drink bottle having a cap with which any alteration of the bottle
contents can be kept in check and also the bottle is sealed, in
which the cap can be used as a cup.

Description of the Prior Art

10 In recent years, various investigations to unify a
respective bottle and cup have been carried out due to convenience
of use.

In my earlier design (Korean Utility-model Application, dated
Oct. 5, 1989, Laid-Open No. 19188/1990), a soft drink bottle
15 having a cap in which the cap can be used as a cup is disclosed.

As a screw-type concave is formed in the lower inside of the
cap, however, the flow of contents(soft drink)can be obstructed by

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the screw-type concave when the cap is used as a cup.

Moreover, the remaining contents in the screw-type concave can flow unsanitary onto bottle body when the cap is set on the bottle after being used as a cup and the contents can be altered
5 easily because the cap is set simply on the bottle body.

And, in my another earlier design (Korean Utility-model Application, dated May 30, 1990, Application No. 7806/1990), it is described that a label having a cutting line formed on the joining part of bottle body and cap of the bottle is wound round
10 the bottle so as to prevent the contents from altering.

But, although the effectiveness to protect the contents of bottle is some high, in that state, either the cutting part is folded or the label is tore from the cutting line when the cap is opened so as to use, therefore, the bottle has a weakness in
15 appearance or sanitation due to stain on the outside of the bottle.

SUMMARY OF THE INVENTION

The object of the present invention is to provide a soft

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drink bottle having a cap with which any alteration of the bottle contents can be kept in check so that the contents can be preserved in safety, and the cap has functions of sealing and cupping.

5 The above described object is achieved by providing a soft drink bottle such as follows : A soft drink bottle comprises a bottle, a cap in which screw-type, one step pressing type or pressing and turning type concave is formed upper inside of the cap, and a cutting band formed on the joining part of the bottle 10 body and the cap so that neither the cutting part is folded or the label is tore from the cutting line when the cap is opened so as to use and appearance of the bottle can be arranged sanitary.

15 The advantages of the present invention will become more apparent from the following description when taken in conjunction with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a perspective of a soft drink bottle of the

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present invention :

Fig. 2 is a perspective of a soft drink bottle of the present invention illustrating a cap separated from the soft drink bottle ;

5 Fig. 3 is a vertical sectional view of a soft drink bottle of the present invention ;

Fig. 4 is a cross sectional view of a bottle neck part shown in Fig. 3 ;

Fig. 5 is a plane sectional view of a bottle neck combining 10 part before combining a cap and bottle body of the present invention ;

Fig. 6 is a cross sectional view taken along a line A-A shown in Fig. 4 ;

Fig. 7 is a perspective of a bottle neck part according 15 to an embodiment of the present invention ;

Fig. 8 is a vertical sectional view illustrating a bottle body combined with a cap shown in Fig. 7 ;

Fig. 9 is a cross sectional view taken along a line B-B

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shown is Fig. 8 ;

Fig. 10 is a cross sectional view taken along a line C-C
shown in Fig. 8 ;

Fig. 11 is a perspective of a bottle neck part according
5 to another embodiment of the present invention ;

Fig. 12 is a cross sectional view of the Fig. 11 ;

Fig. 13 is a cross sectional view taken along a line D-D
shown in Fig. 12.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

10 The present invention will be described in detail with
reference to the accompanying drawings showing preferred
embodiments of the present invention.

Fig. 1 to Fig. 6 show a combined or separated perspective
and a cross section of a bottle according to the present
15 invention.

As shown in Fig. 2, several square columns 1a and
connecting part 2 are formed around a bottle body 1 and at the
top end of the above square column 1a respectively.

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Upward surface of the connecting part 2 comprises a round shape body 5 having bottle neck 4 provided with entrance 3 and several projections 6 are positioned on the bottle neck 4, therefore, the lower parts 7 than the projection parts exist 5 among the projections.

A cap 8 which can be used as a cup comprises round inclined square column 8a which can be coupled up the square column 1a of the bottle body 1, and round inclined inner surface 10 in accord with round shape body 5 below a roof 9 of 10 the cap 8. The number 23 in Fig. 3 indicates liquid soft drink which is the contents of the bottle. As shown in Fig. 4, several projections 11 are positioned on the upper side of the inner surface 10 and convex 13 extended from ceiling part 12 (bottom part in the case of being used as a cup) forms 15 concave 14.

Meanwhile, a label 18 is stuck on and around a connecting part 2 of the cap 8 and the bottle body 1 when they are unified, so that any alteration of the bottle contents is

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impossible and the producer can advertise in the label 18, and a cutting band 17 provided with a strap 16 is formed on the connecting part 2 so as to take off the cutting band 17 along the cutting line 15 and 15a when the user wants to open 5 the cap 8.

As described in the above, in a soft drink bottle according to the present invention, the cap 8 is shut on the bottle body 1 by pressing and turning the cap 8. To be more particular, as the projection 11 positioned on the inner 10 surface 10 of the cap 8 passes between two projections (that is the lower part 7) by pressing the roof 9, at the same time, the upper end of the entrance 3 is brought into contact with the concave 14 of the ceiling part 12. And then, the upper 15 part of the projection 11 positioned on the inner surface 10 is put on the lower part of the projection 6 by turning the cap 8 to close as shown in Fig. 4.

Fig. 7 to Fig. 10 illustrate an embodiment of the present invention. According to the embodiment, an outer hoop 19

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formed around the bottle neck 4 serves as a partner with an inner hoop 20 of the inner surface 10 in the case of closing the cap 8. In this case, by one step pressing, the inner hoop 20 of the cap 8 goes forcibly over the outer hoop 19 of 5 the round shape body 5 so that the cap 8 is closed on condition that the top end of the entrance 3 is contacted with the concave 14.

On the other hand, another embodiment of the present invention is described in Fig. 11 to Fig. 13. As an outer 10 spiral hoop 21 is formed around the bottle neck 4, grooves 21a exist between upper and lower spiral hoop. Therefore, an inner spiral hoop 22 projected on the upper site of the inner surface 10 comes in contact with the groove 21a when the cap 8 turns round for closing or opening it.

15 In any of the above described embodiments, the label stuck on and around the connecting part 2 of the cap 8 and bottle body 1 when they are combined after stuffing with any contents into the bottle can allow advertisement thereon and

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check any alteration in the contents of the bottle.

Accordingly, when the user attempts to open the bottle, the cap 8 can be easily opened by being slightly turned or pulled right or left.

As described in the foregoing, in the soft drink bottle 5 having a cap with combined use of a cup of the present invention, the cap can be easily opened and closed, the contents of the bottle can be safely preserved and the convenience of using can be accomplished due to the combination of a bottle and a cup in a body. Therefore, 10 the soft drink bottle of the present invention can be used in various fields.

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CLAIMS

What is claimed is :

1. A soft drink bottle having a cap with combined use of a cup comprising :

5 a bottle body consisting of lower part with several square columns, connecting part with the cap and upper part with round inclined shape body provided with several projections around the bottle neck ;

a cap to be used as a cup consisting of round inclined 10 several square columns which can be coupled up the several square columns, and round inclined inner surface provided with projections to shut the bottle by pressing and turning the cap in accord with the round inclined shape body below the roof of the cap ; and

15 a label with a cutting band and a strap thereof stuck on and around the connecting part of the cap and the bottle body to advertise therein and to preserve the bottle contents safely.

2. A soft drink bottle having a cap with combined use of a cup according to claim 1, wherein the upper part of the bottle

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body has an outer hoop around the bottle neck, and the round inclined inner surface of the cap has a corresponding inner hoop to shut the bottle with the cap by one step pressing.

3. A soft drink bottle having a cap with combined use of
5 a cup according to claim 1, wherein the upper part of the bottle body has an outer spiral hoop and grooves between upper and lower spiral around the bottle neck, and the round inclined inner surface of the cap has a corresponding inner spiral hoop to screw in closing or opening.

1/4

Fig. 2

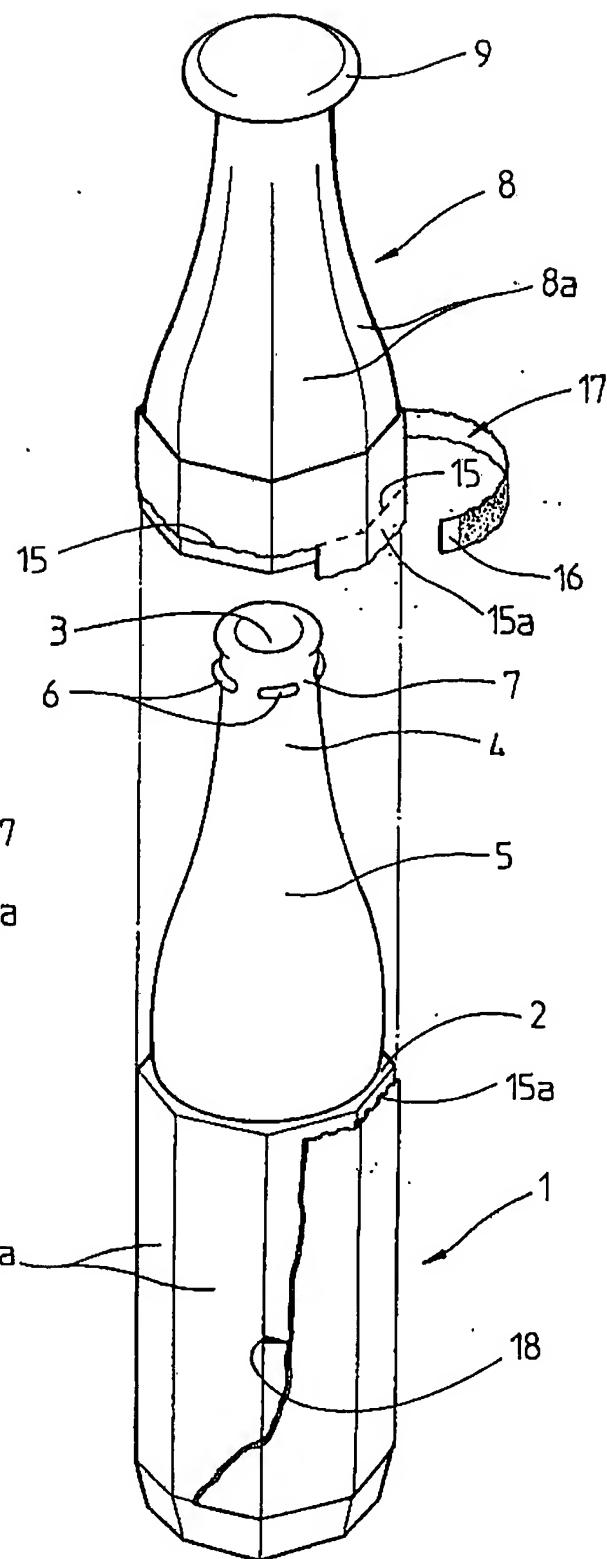
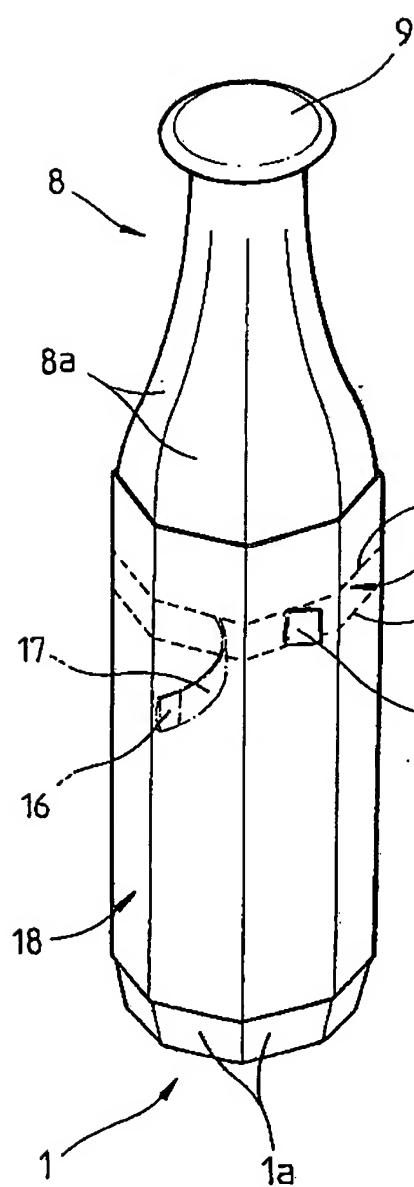


Fig. 1



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Fig. 4

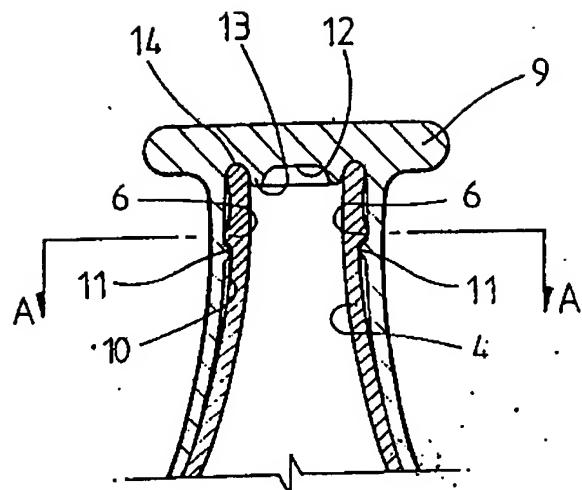


Fig. 3

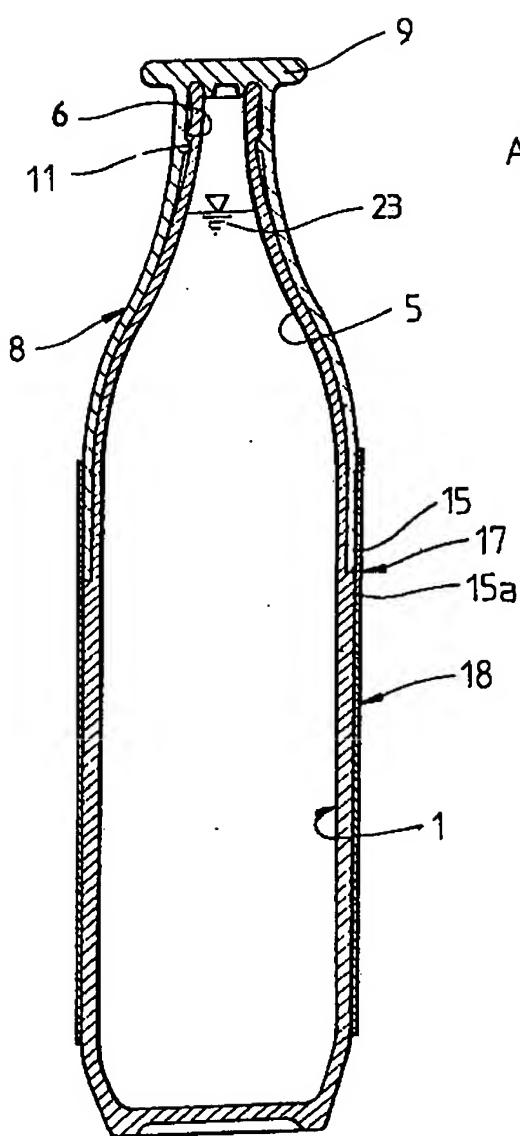


Fig. 5

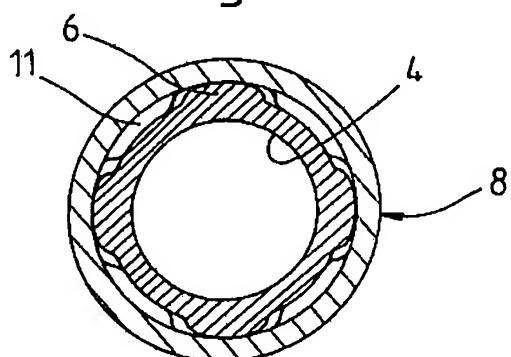
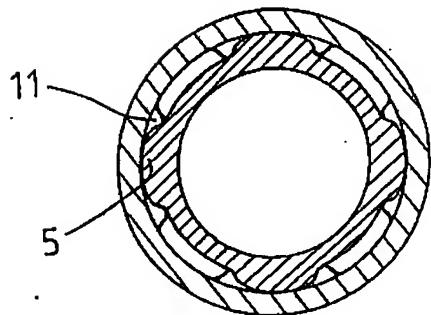


Fig. 6



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Fig. 8

Fig. 7

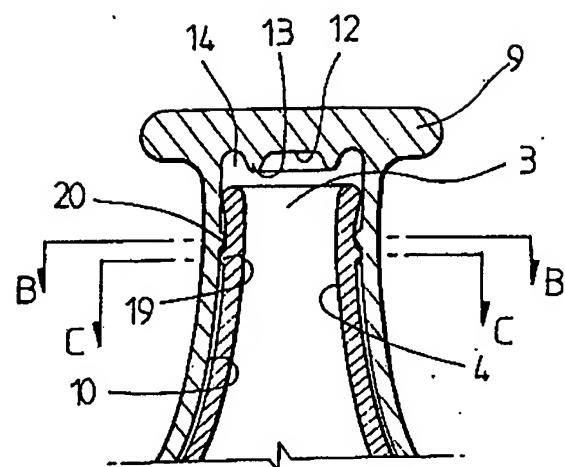
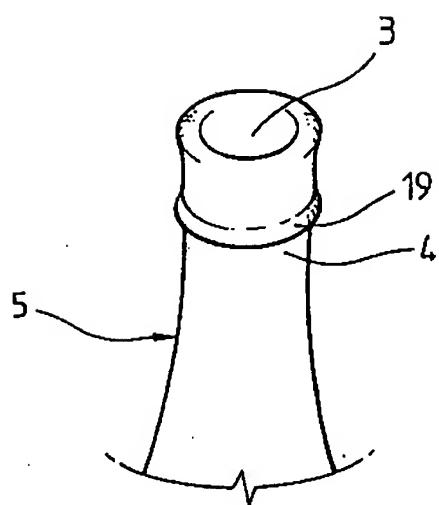


Fig. 9

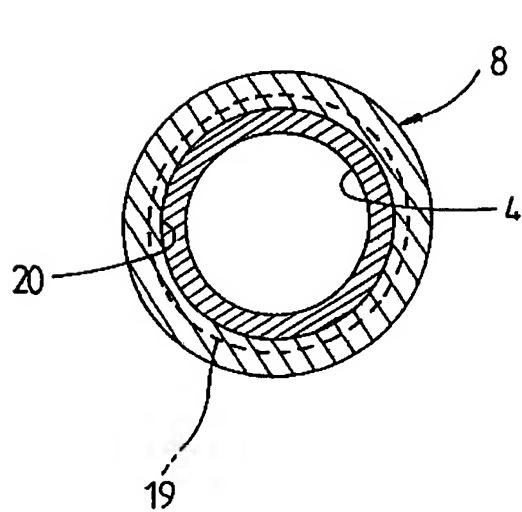
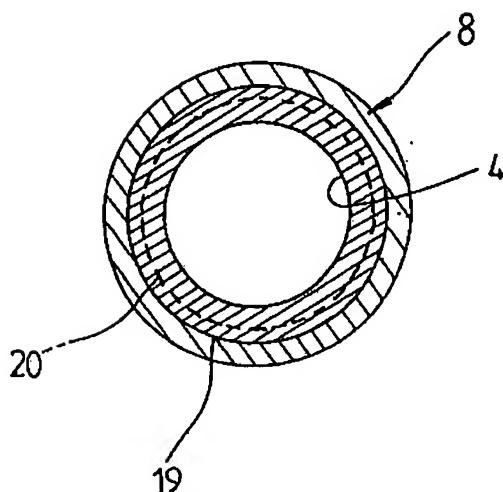


Fig. 10



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Fig. 11

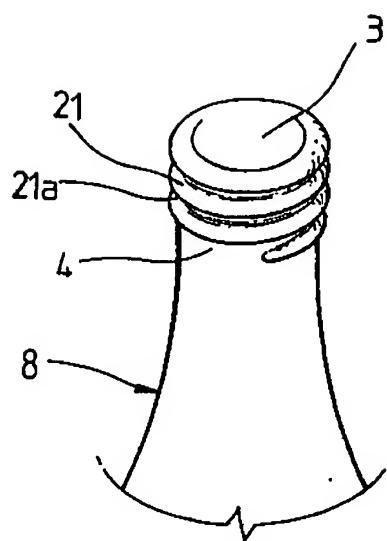


Fig. 12

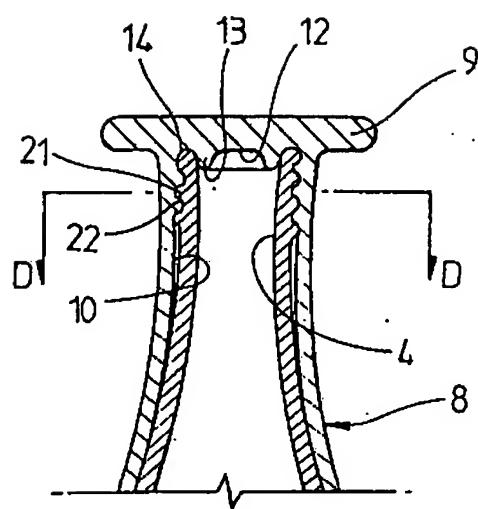
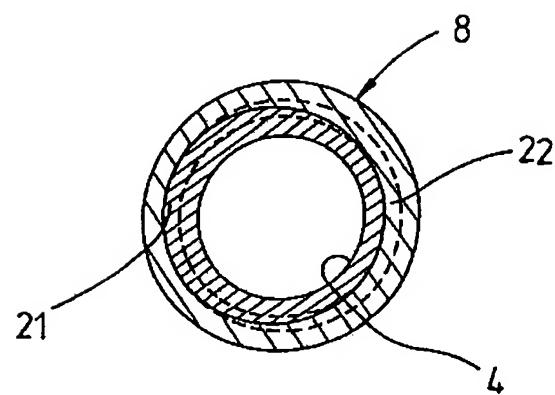


Fig. 13



INTERNATIONAL SEARCH REPORT

International Application No. PCT/KR 91/00014

I. CLASSIFICATION OF SUBJECT MATTER (if several classification symbols apply, indicate all) *

According to International Patent Classification (IPC) or to both National Classification and IPC

Int.Cl. ⁵ : B 65 D 41/26, 1/40, 41/56

II. FIELDS SEARCHED

Minimum Documentation Searched ?

Classification System	Classification Symbols
Int.Cl. ⁵	B 65 D 1/02, 1/10, 1/40, 1/44, 23/00, 23/06, 25/20, 25/32, 41/02, 41/04, 41/16, 41/26, 41/34, 41/46, 41/56, 47/06, 47/12, 51/24, 55/02

Documentation Searched other than Minimum Documentation
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III. DOCUMENTS CONSIDERED TO BE RELEVANT *

Category *	Citation of Document, ¹¹ with indication, where appropriate, of the relevant passages ¹²	Relevant to Claim No. ¹³
A	CH, A5, 560 632 (ANDRE BORGEAUD) 15 April 1975 (15.04.75).	1
A	DE, C, 74 261 (CONRAD HANS) 05 September 1893 (05.09.1893).	1
A	DE, C, 199 187 (LEOPOLD GOLDMANN) 19 November 1907 (19.11.07).	1
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IV. CERTIFICATION

Date of the Actual Completion of the International Search	Date of Mailing of this International Search Report
23 July 1991 (23.07.91)	31 July 1991 (31.07.91)
International Searching Authority AUSTRIAN PATENT OFFICE	Signature of Authorized Officer 

Anhang zum internatio-
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Keine - None - Rien

DE-C - 199187

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CH-A - 59861

Keine - None - Rien